

AMENDMENTS

Listing of the Claims

1. – 20. (canceled)

21. (currently amended) A method of making solid nanoparticles, comprising:

making an oil-in-water microemulsion by heating, the microemulsion comprising:

a liquid nanoparticle matrix material formed by heating a solid matrix material until melted;

a surfactant or a co-surfactant or a mixture thereof, and

a molecule of interest, wherein the molecule is a drug molecule, ~~a food, a magnet,~~
~~or a sensor molecule;~~

wherein the microemulsion is formed essentially spontaneously by heating at a temperature of between about 35°C and about 100°C; and

cooling the microemulsion while stirring to form solid nanoparticles having a diameter of less than about 300 nanometers, wherein said solid nanoparticles are formed by cooling the microemulsion without aqueous dilution, and where the molecule of interest is either entrapped in or adsorbed to the solid nanoparticles.

22. (cancelled)

23. (previously presented) The method according to claim 22, wherein the nanoparticle matrix material comprises one or more of the following materials: emulsifying wax, polyoxyethylene sorbitan fatty acid esters, polyoxyethylene alkyl ethers, polyoxyethylene stearates, phospholipids, fatty acids or fatty alcohols or their derivatives, or combinations thereof.

24. (previously presented) The method according to claim 21, wherein the liquid nanoparticle matrix material is present in the microemulsion at a concentration from about 0.1 to about 30 mg/mL.

25. (previously presented) The method according to claim 22, wherein the microemulsion comprises an oil phase that is present as liquid droplets having a diameter of less than about 100 nanometers.

26. (previously presented) The method according to claim 22, wherein the microemulsion comprises a continuous phase comprising water or an aqueous buffer at a concentration of greater than about 95% w/w.

27. (previously presented) The method according to claim 21, wherein the surfactant or co-surfactant comprises polyoxyethylene alkyl ethers, polyoxyethylene sorbitan fatty acid esters, polyoxyethylene stearates, hexadecyltrimethylammonium bromide, fatty alcohol and their derivatives, or combinations, thereof.

28. (previously presented) The method according to claim 21, wherein the surfactant is present at a total concentration of about 1-5000 mM.

29. (previously presented) The method according to claim 21, wherein the molecule of interest is present at a total concentration in the range of about 20 µg/mL to about 5 mg/mL.

30. – 32. (canceled)

33. (original) The method according to claim 21, wherein the nanoparticle is coated with a cell-specific ligand such as an antibody, carbohydrate, peptide, protein, or derivatives or combinations thereof.

34. (previously presented) The method of claim 21, wherein the nanoparticles and molecule of interest are formulated into a pharmaceutical composition suitable for intravenous, intramuscular or subcutaneous administration.